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=> file reg

FILE 'REGISTRY' ENTERED AT 15:14:45 ON 23 AUG 2005

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=> d his

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FILE 'REGISTRY' ENTERED AT 14:01:03 ON 23 AUG 2005
               ACT RON643/A
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L1
                STR
L2
             30 SEA FILE=REGISTRY SSS FUL L1
               E POLYCARBONATE/PCT
L3
         17986 S E3
     FILE 'CAOLD' ENTERED AT 14:02:55 ON 23 AUG 2005
L4
             2 S L2
     FILE 'HCA' ENTERED AT 15:11:47 ON 23 AUG 2005
L5
             41 S L2
L6
          71901 S L3 OR POLYCARBONATE# OR (POLY OR POLYM? OR HOMOPOLYM? O
L7
          97468 S (POLYM? OR COPOLYM? OR HOMOPOLYM? OR TERPOLYM? OR GUM#
L8
             1 S L5 AND L6
L9
              2 S L5 AND L7
               QUE (35 OR 36 OR 37 OR 38)/SC, SX
L10
L11
             3 S L5 AND L10
L12
             4 S L8 OR L9 OR L11
L13
            37 S L5 NOT L12
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FILE 'REGISTRY' ENTERED AT 15:14:45 ON 23 AUG 2005

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=> d 12 que stat
L1 STR
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VAR G1=22/I-PR/28/37/43/OH/46
NODE ATTRIBUTES:
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CONNECT IS E1 RC AT 33 CONNECT IS E1 RC AT 40 RC AT 43 CONNECT IS E1 CONNECT IS E1 RC AT 46 CONNECT IS E1 RC AT CONNECT IS E1 RC AT 49 DEFAULT MLEVEL IS ATOM GGCAT IS SAT AΤ 33 40 **GGCAT** IS SAT AT **GGCAT** IS UNS AT 43 IS SAT **GGCAT** AT48 **GGCAT** IS SAT AT 49

DEFAULT ECLEVEL IS LIMITED ECOUNT IS M1-X4 C ΑT IS M1-X4 C AT40 ECOUNT IS M3-X20 C AT 43 **ECOUNT** 

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### GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 40

STEREO ATTRIBUTES: NONE

L230 SEA FILE=REGISTRY SSS FUL L1 100.0% PROCESSED 50213 ITERATIONS SEARCH TIME: 00.00.01

30 ANSWERS

=> file caold FILE 'CAOLD' ENTERED AT 15:14:57 ON 23 AUG 2005 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1907-1966 FILE LAST UPDATED: 01 May 1997 (19970501/UP)

=> d 14 1-2 ti

- L4 ANSWER 1 OF 2 CAOLD COPYRIGHT 2005 ACS on STN 1,5(or 1,8)-diaminoanthraquinones
- L4 ANSWER 2 OF 2 CAOLD COPYRIGHT 2005 ACS on STN synthesis of cationic dyes of the anthraquinone series (I) quaternary ammonium salts derived from 1,4-disubstituted anthraquinones, (II) quaternary ammonium salts derived from 1-amino-, 1,5- and 1,8-bis[dialkylaminoaryl(or alkyl)amino]-anthraquinones

=> file hca FILE 'HCA' ENTERED AT 15:15:12 ON 23 AUG 2005 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

#### => d 112 1-4 cbib abs hitstr hitind

L12 ANSWER 1 OF 4 HCA COPYRIGHT 2005 ACS on STN

142:207701 Limited play optical storage medium, method for making the same. Sivakumar, Krishnamoorthy; Schottland, Philippe; Sahoo, Binod Behari; Shankarling, Ganapati Subray; Sait, Meerakani Mohamed Ali; Dhalla, Adil Minoo (General Electric Company, USA). PCT Int. Appl. WO 2005010872 Al 20050203, 80 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,

LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2004-US22482 20040714. PRIORITY: US 2003-619642 20030715.

A limited play optical storage medium for data comprises: a AΒ reflective layer, a control portion comprising an optically transparent polymeric resin and a light absorbing material, wherein the control portion has a light transmission of greater than or equal to about 70% at 650 nm, a curing index of greater than or equal to about 0.1 and a filtration index of greater than or equal to about 2.5, and wherein the light absorbing material has a min. extinction coeff. (measured in CH2Cl2 soln.) at 600 nm of greater than or equal to 1,500 mol-1 cm-1 L, a max. extinction coeff. (measured in CH2Cl2 soln.) at 650 nm of less than about 1,000 mol-1 cm-1 L, a ratio of extinction coeff. at 650 nm to 600 nm less than about 0.1, and a reactive layer disposed between the reflective layer and the control portion, wherein the reactive layer is designed to limit the time during which data on the medium (disposed on a side of the reactive layer opposite the control portion), can be accessed after exposure to oxygen.

IT **60316-44-1P**, 1,8-Bis(isopropylamino)anthraquinone **75312-57-1P 478695-69-1P** 

(light absorbing material; limited play optical storage medium contg.)

RN 60316-44-1 HCA

CN 9,10-Anthracenedione, 1,8-bis[(1-methylethyl)amino]- (9CI) (CA INDEX NAME)

RN 75312-57-1 HCA

CN 9,10-Anthracenedione, 1,8-bis[[2-(diethylamino)ethyl]amino]- (9CI) (CA INDEX NAME)

RN 478695-69-1 HCA

CN 9,10-Anthracenedione, 1,8-bis(cyclohexylamino) - (9CI) (CA INDEX NAME)

IC ICM G11B007-00

ICS C09B001-28; C09B057-02

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 1614-59-1P 33175-76-7P, 1,5-Bis(isopropylamino)anthraquinone 60316-44-1P, 1,8-Bis(isopropylamino)anthraquinone

70711-39-6P **75312-57-1P 478695-69-1P** 

825190-77-0P 836627-38-4P

(light absorbing material; limited play optical storage medium contq.)

L12 ANSWER 2 OF 4 HCA COPYRIGHT 2005 ACS on STN

142:135646 Colored polymeric resin composition

containing anthraquinone derivatives, article made therefrom, and method for making the same. Schottland, Philippe; Sivakumar, Krishnamoorthy; Sahoo, Binod Behari; Shankarling, Ganapati Subray; Ali Sait, Meerakani Mohamed; Dhalla, Adil Minoo (USA). U.S. Pat. Appl. Publ. US 2005014878 Al 20050120, 19 pp. (English). CODEN: USXXCO. APPLICATION: US 2003-619643 20030715.

GΙ

AB In one embodiment, a colored polymeric resin compn. comprises: a polymeric resin; and a 1,8-anthraquinone deriv. I having a purity of greater than or equal to about 90%: 1 wherein R2-R7 are, individually, selected from the group consisting of a hydrogen atom, a hydroxyl group, an alkoxy group, an aryloxy group, an aliph. group, an arom. group, a heterocyclic group, a halogen atom, a cyano group, a nitro group, -COR9, -COOR9, -NR9R10, -NR10 COR11, -NR10SO2R11, -CONR9R10, -CONHSO2R11, and -SO2NHCOR11; in which R9 and R10 are, individually, selected from the group consisting of a hydrogen atom, an aliph. group, an arom. group, and a heterocyclic group; wherein R11 is selected from the group consisting of an aliph. group, an arom. group, and a heterocyclic group; and wherein R is selected from the group consisting of hydrogen, an alkyl group contg. 1 to 20 carbon atoms, a cycloalkyl group contg. 3 to 20 carbon atoms, an allyl group contg. 3 to 20 carbon atoms, a hydroxyl group, a 5-membered heterocyclic ring, and a 6-membered heterocyclic ring. A compn. contained optical quality polycarbonate and 1,8-bis(cyclohexylamino)anthraquinone.

IT 60316-44-1P, 1,8-Bis(isopropylamino) anthraquinone 75312-57-1P 478695-69-1P

Ι

(colorant; colored polymeric resin compn.

contg. anthraquinone derivs., article made therefrom, and method for making the same)

RN 60316-44-1 HCA

CN 9,10-Anthracenedione, 1,8-bis[(1-methylethyl)amino]- (9CI) (CA INDEX NAME)

RN 75312-57-1 HCA

CN 9,10-Anthracenedione, 1,8-bis[[2-(diethylamino)ethyl]amino]- (9CI) (CA INDEX NAME)

RN 478695-69-1 HCA

CN 9,10-Anthracenedione, 1,8-bis(cyclohexylamino)- (9CI) (CA INDEX NAME)

IC ICM C08K005-08

INCL 524242000

CC **37-6** (Plastics Manufacture and Processing)

Section cross-reference(s): 41

IT Coloring materials

(colored polymeric resin compn. contg.

anthraquinone derivs., article made therefrom, and method for making the same)

IT Polycarbonates, uses

825190-77-0P

- (colored polymeric resin compn. contg.
- anthraquinone derivs., article made therefrom, and method for making the same)  $\,$
- IT 1614-59-1P 33175-76-7P, 1,5-Bis(isopropylamino) anthraquinone 60316-44-1P, 1,8-Bis(isopropylamino) anthraquinone 70711-39-6P 75312-57-1P 478695-69-1P

(colorant; colored polymeric resin compn.

contg. anthraquinone derivs., article made therefrom, and method for making the same)

- TT 75-31-0, Isopropyl amine, reactions 82-43-9, 1,8-Dichloroanthraquinone 82-46-2, 1,5-Dichloroanthraquinone 100-36-7, N,N-Diethylethylenediamine 104-75-6, 2-Ethylhexylamine 108-91-8, Cyclohexylamine, reactions 109-55-7 (colored polymeric resin compn. contg. anthraquinone derivs., article made therefrom, and method for making the same)
- L12 ANSWER 3 OF 4 HCA COPYRIGHT 2005 ACS on STN
- 74:13913 Plastic filter for protection from laser radiation. Tucker, Robert J.; Hosler, John F. (American Cyanamid Co.). Ger. Offen. DE 2012969 19700924, 16 pp. (German). CODEN: GWXXBX. PRIORITY: US; 19690318.
- Plastic lenses or filters for protecting the eyes against the deleterious effects of laser radiation have a visual transparency of .gtoreq.15% and contain enough of a radiation-absorbing compd. to give an optical d. .gtoreq.3 at the wavelength of the radiation. Thus, a lens casting compn. was prepd. by ball-milling poly(Me methacrylate) 1000, 1,4,5,8-tetrakis(cyclohexylamino)anthraquinone 0.4, and 2,2'-dihydroxy-4-methoxybenzophenone 0.5 g, drying at 70.degree., and injection molding into lenses 2.5 mm thick. The products had an optical d. of 3.88 at the wavelength of a ruby laser, and a visual transparency of 50%. These lenses are easy to prep., and have good visibility characteristics.
- IT 28634-38-0

(lenses contg., for shielding against laser radiation)

- RN 28634-38-0 HCA
- CN 9,10-Anthracenedione, 1,4,5,8-tetrakis(cyclohexylamino)- (9CI) (CA INDEX NAME)

IC C08F

CC **37** (Plastics Fabrication and Uses)

IT 118-75-2, uses and miscellaneous 131-53-3 842-07-9 5496-71-9 **28634-38-0** 30470-68-9 30470-69-0 (lenses contg., for shielding against laser radiation)

L12 ANSWER 4 OF 4 HCA COPYRIGHT 2005 ACS on STN

63:10022 Original Reference No. 63:1757a-e 1,5(or 1,8)Diaminoanthraquinones. Turner, Arthur G.; Sharp, Thomas M.
(Wellcome Foundation Ltd.). GB 985970 19650310, 4 pp.
(Unavailable). APPLICATION: GB 19600815.

GI For diagram(s), see printed CA Issue.

AB Compds. of the general formulas I and II, where n = 2 to 10, NR1R2 is NMe2, NEt2, NMeEt, piperidino (III), 4-methyl-1-piperazinyl (IV), or hexamethylenimino (V) and Z = H or Me, and their acid addition salts were prepd. by treating corresponding 1,5(or 1,8)-disubstituted anthraquinones with an .omega.-disubstituted amino alkylene amine. Thus, 30 g. 1,5-dichloroanthraquinone, 40 ml. 2-diethylaminoethylamine, 20 g. K2CO3, 1.2 g. Cu powder, 2.4 g. Cu(OAc)2.H2O, and 180 ml. amyl alc. was refluxed 20 hrs., steam distd., the residue was acidified with dil. HCl, filtered, and the filtrate was made alk. with NH4OH to give 1,5-bis(2diethylaminoethylamino) anthraquinone, purple-brown, m. 163-5.degree. (alc.); dihydrobromide, scarlet needles, m. 303.degree.. Other anthraquinones were similarly prepd. and are tabulated. 1,5-Bis(4-diethylamino-1-methylbutylamino) anthraquinone binoxalate, m. 177-9.degree., was also prepd. Formula, n, NR1R2, Z, M.p., Salt, M.p.; I, 2, NMe2, H, 188-90.degree., 2HCl, 317.degree. (decompn.);

I, 3, NMe2, H, -, 2HCl, 287-9.degree.; I, 3, NEt2, H, -, 2HCl, 285-7.degree.; I, 4, NEt2, H, -, 2HCl, 238-240.degree.; I, 5, NEt2, H, 115.degree., 2HCl, 235-6.degree.; I, 3, III, H, 104-7.degree., 2HCl, 283-5.degree.; I, 2, V, H, 175-7.degree., 2HCl, 327.degree. (decompn.); I, 3, IV, H, -, 4HCl, 295.degree.; I, 10, NEt2, H, -, 2HBr, 213-15.degree.; I, 2, NEt2, Me, -, 2HCl, 260-5.degree.; II, 2, NEt2, H, -, 2HCl, 263-5.degree.; II, 3, NEt2, H, -, 2HCl, 282-4.degree.; The products were active against infections of Hymenolepis nana and Oochoristica symmetrica in mice as compns. in capsules and cachets of the acid addn. salts and an acceptable carrier.

RN 1614-66-0 HCA

CN Anthraquinone, 1,8-bis[[2-(diethylamino)ethyl]amino]-, dihydrochloride (7CI, 8CI) (CA INDEX NAME)

## ●2 HCl

IC CO9B

CC **36** (Condensed Aromatic Compounds)

IT 1558-46-9, Anthraquinone, 1,5-bis[[2-(hexahydro-1H-azepin-1y1)ethyl]amino]-, dihydrochloride 1558-47-0, Anthraquinone, 1,5-bis[[2-(hexahydro-1H-azepin-1-yl)ethyl]amino]-1558-48-1, Anthraquinone, 1,5-bis[[3-(diethylamino)propyl]amino]-, 1558-49-2, Anthraguinone, 1,5-bis[[2dihydrochloride (dimethylamino)ethyl]amino]-, dihydrochloride 1614-59-1, Anthraquinone, 1,5-bis[[2-(diethylamino)ethyl]amino]-1614-64-8, Anthraquinone, 1,8-bis[[3-(diethylamino)propyl]amino]-1614-65-9, Anthraquinone, 1,8-bis[[3-(diethylamino)propyl]amino]-, dihydrochloride 1614-66-0, Anthraquinone, 1,8-bis[[2-(diethylamino)ethyl]amino]-, dihydrochloride 1614-68-2, Anthraguinone, 1,5-bis[[2-(diethylamino)ethyl]amino]-, dihydrobromide 1750-03-4, Anthraquinone, 1,5-bis[[2-(diethylamino)ethyl]amino]-2-methyl- 1787-01-5, Anthraquinone,

1,5-bis[(3-piperidinopropyl)amino]-, dihydrochloride 1787-02-6, Anthraquinone, 1,5-bis[[5-(diethylamino)pentyl]amino]-, dihydrochloride 1787-03-7, Anthraquinone, 1,5-bis[[4-(diethylamino)butyl]amino]-, dihydrochloride Anthraquinone, 1,5-bis[[3-(dimethylamino)propyl]amino]-, dihydrochloride 1787-05-9, Anthraquinone, 1,5-bis[[2-(dimethylamino)ethyl]amino]-1886-20-0, Anthraguinone, 1,5-bis[[4-(diethylamino)-1-methylbutyl]amino]-, oxalate (1:2) 1928-09-2, Anthraquinone, 1,5-bis[(3-piperidinopropyl)amino]-2077-53-4, Anthraquinone, 1,5-bis[[5-(diethylamino)pentyl]amino]-2324-20-1, Anthraquinone, 1,5-bis[[3-(4-methyl-1piperazinyl)propyl]amino]-, tetrahydrochloride 2586-86-9, Anthraquinone, 1,5-bis[[10-(diethylamino)decyl]amino]-, 2791-13-1, 2-Naphthacenecarboxamide, dihydrobromide 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,10,12,12atetrahydroxy-9-nitro-1,11-dioxo-, sulfate (salt) (prepn. of)

#### => d l13 1-37 ti

- L13 ANSWER 1 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Synthesis and pharmaceuticals of novel bis-substituted anthraquinone derivatives
- L13 ANSWER 2 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Synthesis of an antitumor compound and study on its reaction mechanism
- L13 ANSWER 3 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Synthetic threading intercalators as a new analytical probe for nucleic acid and gene detection
- L13 ANSWER 4 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Allylaminoanthraquinones and their use
- L13 ANSWER 5 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Bromination of 1,5-dinitroanthraquinone
- L13 ANSWER 6 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Substituent position dictates the intercalative DNA-binding mode for anthracene-9,10-dione antitumor drugs
- L13 ANSWER 7 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Photosensitization by anticancer agents. 11. Mechanisms of photosensitization of human leukemic cells by diaminoanthraquinones: singlet oxygen and radical reactions

- L13 ANSWER 8 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Preparation of [(dialkylamino)alkylamino]anthraquinone dioxides as neoplasm inhibitors
- L13 ANSWER 9 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Photosensitization of human leukemic cells by anthracenedione antitumor agents
- L13 ANSWER 10 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Synthesis and antitumor evaluations of 1,8-bis[(2-aminoethyl)amino]anthracene-9,10-diones
- L13 ANSWER 11 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Synthesis of aminoanthraquinone derivatives and their in vitro evaluation as potential anti-cancer drugs
- L13 ANSWER 12 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Free radical formation by cytotoxic alkylaminoanthraquinones in liver microsomes
- L13 ANSWER 13 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Thermodynamic studies on the interactions of disubstituted anthraquinones with DNA
- L13 ANSWER 14 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Inhibition of bovine serum amine oxidase activity by aminoalkylaminoanthraquinones
- L13 ANSWER 15 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Isotachophoretic examination of interaction of intercalators with ribodinucleoside monophosphates
- L13 ANSWER 16 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Pleochroic anthraquinone dyes and electrooptical displays therewith
- L13 ANSWER 17 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Photosensitization by antitumor agents. 7. Correlation between anthracenedione-photosensitized DNA damage, NADH oxidation and oxygen consumption following visible light illumination
- L13 ANSWER 18 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Photosensitization by antitumor agents. 6. Production of superoxide radical and hydrogen peroxide during illumination of diaminoanthracenediones in the presence of NADH in aqueous solutions: an EPR study
- L13 ANSWER 19 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI 4,5-Amino and thioether derivatives of 1,8-dihydroxyanthraquinone

- L13 ANSWER 20 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Structural modification study of mitoxantrone (DHAQ). Chloro-substituted mono- and bis[(aminoalkyl)amino]anthraquinones
- L13 ANSWER 21 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Liquid crystal compositions containing anthraquinone compounds
- L13 ANSWER 22 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI DNA sequence preferences for the anti-cancer drug mitoxanthrone and related anthraquinones revealed by DNase I footprinting
- L13 ANSWER 23 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Comparative computer graphics and solution studies of the DNA interaction of substituted anthraquinones based on doxorubicin and mitoxantrone
- L13 ANSWER 24 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Dissociation kinetics of DNA-anthracycline and DNA-anthraquinone complexes determined by stopped-flow spectrophotometry
- L13 ANSWER 25 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Experimental and computer graphics simulation analyses of the DNA interaction of 1,8-bis-(2-diethylaminoethylamino)anthracene-9,10-dione, a compound modeled on doxorubicin
- L13 ANSWER 26 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Computer graphics in rational anticancer drug design
- L13 ANSWER 27 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Liquid crystal systems and electrooptical indicators
- L13 ANSWER 28 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI 1,4-Bis(aminoalkylamino)anthraquinones and leuco derivatives
- L13 ANSWER 29 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI (Hydroxyamino) anthraquinones
- L13 ANSWER 30 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Ink, paste and auxiliary support for transfer printing
- L13 ANSWER 31 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Mono- and bis(hydroxylamino)anthraquinones
- L13 ANSWER 32 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Infrared transmitting filter containing 1,4,5,8-tetracyclohexylaminoanthraquinone

- L13 ANSWER 33 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Anthraquinone dyes
- L13 ANSWER 34 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Anthraquinone derivatives containing chloro, bromo and amino substituents, useful as dye intermediates
- L13 ANSWER 35 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Dyeing of synthetic textiles
- L13 ANSWER 36 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI Synthesis of cationic dyes of the anthraquinone series. II. Quaternary ammonium salts derived from 1-mono-, 1,5- and 1,8-bis[dialkylaminoaryl(or alkyl)amino]anthraquinones
- L13 ANSWER 37 OF 37 HCA COPYRIGHT 2005 ACS on STN
- TI 1,4,5,8-Tetraaminoanthraquinones
- => d 113 21,22,30,32,35 cbib abs hitstr hitrn
- L13 ANSWER 21 OF 37 HCA COPYRIGHT 2005 ACS on STN
- 105:124355 Liquid crystal compositions containing anthraquinone compounds. Miura, Konoe; Ozawa, Tetsuo; Iwanami, Junko (Mitsubishi Chemical Industries Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 61030590 A2 19860212 Showa, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1984-152629 19840723.

GI

- \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT \*
- The title compds. I and II (R = H, alkyl, alkoxy, halo; R1 = H, alkyl, cycloalkyl, aryl, aralkyl, tetrahydrofurfuryl) are useful in liq. crystal compns. The compds. are optically stable and have excellent soly. in liq. crystals. Thus, refluxing 2-O2NC6H4SH and anthraquinone (III) for 1 h gave I (R = H; R1 = C6H4Bu-4) (IV). A display device prepd. by using a cyanooctylbiphenyl liq. crystal compn. contg. 0.5% IV was irradiated by a GaAlAs semiconductor laser beam to give black images with excellent contrast.
- IT 104047-64-5 104047-65-6 104077-35-2
  - (lig. crystal compns. contg., for laser-recordable displays)
- RN 104047-64-5 HCA
- CN 8H,16H-Benzo[1,2-a:5,4-a']diphenothiazine-8,17(18H)-dione, 7,9-bis(cyclohexylamino)- (9CI) (CA INDEX NAME)

RN 104047-65-6 HCA

CN 8H,16H-Benzo[1,2-a:5,4-a']diphenothiazine-8,17(18H)-dione, 7,9-bis[(4-butylcyclohexyl)amino]-, [trans(trans)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 104077-35-2 HCA

CN 8H,16H-Benzo[1,2-a:5,4-a']diphenothiazine-8,17(18H)-dione, ar,ar'-dichloro-7,9-bis[(4-propoxycyclohexyl)amino]-, [trans(trans)]- (9CI) (CA INDEX NAME)

2 (D1-C1)

## IT 104047-64-5 104047-65-6 104077-35-2

(liq. crystal compns. contg., for laser-recordable displays)

L13 ANSWER 27 OF 37 HCA COPYRIGHT 2005 ACS on STN 92:224308 Liquid crystal systems and electrooptical indicators. Huffman, William A. (Minnesota Mining and Manufacturing Co., USA). Ger. Offen. DE 2920730 19791129, 31 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1979-2920730 19790522.

GΙ

$$(R^1HN)$$
  $R_k$   $R_k$ 

AB A pleochroic dye which is highly sol. (0.01-50 wt.%) in nematic liq. crystals with pos. dielec. anisotropy and which can be used to produce electrooptical displays with high color contrast between the on- and off-modes has the formula I [R = F, Cl, NO2, NH2, OH, or

C1-8 alkylamine; k = 0-3; R1 = cyclohexyl, bicyclohexyl, or (CH2)pR2 where p = 0-2 and R2 = C6-10 aryl where in the 4-position are NHCOMe, CN, CnH2n+1, OCnH2n+1, cyclohexyl, 4-C1-8 alkylcyclohexyl, or ZqC6H4R3-p (q = 0 or 1; Z = CH2, O, S, or OCH2; R3 = H, NO2, CN, CnH2n+1, OCnH2n+1, F, Cl, or (when q=0) Ph), m=1-2; and in .ltoreq.2 positions are CN, CnH2n+1, OCnH2n+1, NH2, or OH where n =1-20]. Thus, 1,5-dichloroanthraquinone 5 was added to 4-amino-1-cyclohexylbenzene 20 with NaOAc 5 and Cu 0.1 part and refluxed 2 h to give 1,5-bis(4-cyclohexylphenyl)anthraquinone (II). II 10mg was added to a mixt. 1.0g of pentylphenylcyclohexyl cyanide 35.9, propylphenylcyclohexyl cyanide 36.1, and heptylphenylcyclohexyl cyanide 24.1 and pentylphenylcyclohexyldiphenyl cyanide 13.9%. The mixt. .apprx.50mg was added to a nematic mixt. 0.5g at 65.degree. and placed between 2 5 .times. 7 cm and 5-mm thick glass plates coated with In oxide activated with Zr oxide and contacted with 2 5-cm long polytetrafluoroethylene strips. Cholesteryl nonanoate 0.1-50 wt.% was added and a switching voltage of 0.8-10 V applied to give a color change from red to clear.

# IT **73592-58-2**

CN

(electrooptical display devices contg., liq.-crystal, with improved color contrast)

RN 73592-58-2 HCA

9,10-Anthracenedione, 1,8-bis([1,1'-bicyclohexyl]-4-ylamino)- (9CI) (CA INDEX NAME)

#### IT **73592-58-2**

(electrooptical display devices contg., liq.-crystal, with improved color contrast)

L13 ANSWER 30 OF 37 HCA COPYRIGHT 2005 ACS on STN 85:110016 Ink, paste and auxiliary support for transfer printing. (Bayer A.-G., Fed. Rep. Ger.). Belg. BE 826898 19750922, 14 pp. (French). CODEN: BEXXAL. APPLICATION: BE 1975-154511 19750320.

Ι

AB Anthraquinone dyes (I, R = Me, Me2CH; R1 = 5- or 8-NHR) were used to print acrylic, acetate, polyamide, and polyester fibers fast, clear red shades from cotton or paper transfer sheets. For example, (I) R = Me2CH, 1,5-substituted) [33175-76-7] was prepd. by the compensation of 1,5-anthraquinonedisulfonic acid [117-14-6] with Me2CHNH2 [75-31-0].

IT 60316-44-1

(dye, for transfer printing of synthetic fiber)

RN 60316-44-1 HCA

CN 9,10-Anthracenedione, 1,8-bis[(1-methylethyl)amino]- (9CI) (CA INDEX NAME)

IT **60316-44-1** 

(dye, for transfer printing of synthetic fiber)

L13 ANSWER 32 OF 37 HCA COPYRIGHT 2005 ACS on STN 84:67728 Infrared transmitting filter containing 1,4,5,8-tetracyclohexylaminoanthraquinone. Tucker, Robert J. (American Cyanamid Co., USA). U.S. US 3926835 19751216, 4 pp. (English).

CODEN: USXXAM. APPLICATION: US 1973-368385 19730608. Optical filters made by incorporating org. dyes along with AB 1,4,5,8-tetracyclohexylaminoanthraquinone(I) have a max. transmission of .apprx.2% in the region up to .apprx.700 m.mu. and a transmission of at least .apprx.50% and generally 85-90% in the regions from .apprx.700 to .apprx.1200 m.mu.. Thus, a mixt. of VYNW-5 (a copolymer of 97% vinyl chloride and 3% vinyl acetate) 10 q and THF solvent to a total volume of 100 ml. was stirred until all the polymer dissolved. Then dioctyl phthalate (plasticizer) 2, C.I. Acid Green 25 0.0375, C.I. Disperse Red 9 0.0328, C.I. Solvent Violet 13 0.0244, C.I. Solvent Yellow 14 0.0132, Direct Dye C.I. 28705 0.0105, and I 0.0100 g were added with stirring. A portion of the resulting soln. was then poured onto a glass plate and drawn down into a film which was dried. The transmission curve of this 3.9-mil thick dark violet film indicates that it is substantially opaque to visible light, but exhibits a sharp rise in transmittance at 650-700 m.mu. and high transmittance at 700-1200 m.mu..

IT 28634-38-0

(ir-transmitting filter contg.)

RN 28634-38-0 HCA

CN 9,10-Anthracenedione, 1,4,5,8-tetrakis(cyclohexylamino)- (9CI) (CA INDEX NAME)

IT **28634-38-0** 

(ir-transmitting filter contg.)

L13 ANSWER 35 OF 37 HCA COPYRIGHT 2005 ACS on STN 65:39193 Original Reference No. 65:7356e-g Dyeing of synthetic textiles. Crotti, Argento (A.C.N.A.-Aziende Colori Nazionali Affini

S.p.A.). FR 85557 19650903, 3 pp.; Addn. to Fr. 1,257,940 (Unavailable). PRIORITY: IT; 19630403.

GI For diagram(s), see printed CA Issue.

On polyolefin fibers anthraquinone disperse dyes (I), where X = H, halogen, alkyl, OH, OR, SR, SO2R, CN, CONH2, NH2, or NHR, have good affinities and fastnesses. To prep. I (X = H), reflux 1,4,5,8-tetrachloroanthraquinone 10, cyclohexylamine 200, KOAc 8, and Cu(OAc)2 0.8 g. at 130.degree. for several hrs. After completion dil. with 100 ml. EtOH, filter, wash with EtOH and H2O at 50-60.degree. Recrystn. from EtOH yields a blue powder. Dyeing is performed by usual methods (30-90 min., 95-100.degree., rinse and wash).

IT 28634-38-0, Anthraquinone, 1,4,5,8-tetrakis(cyclohexylamino)-(derivs., for olefin polymer fiber dyeing)

RN 28634-38-0 HCA

CN 9,10-Anthracenedione, 1,4,5,8-tetrakis(cyclohexylamino)- (9CI) (CA INDEX NAME)

IT 28634-38-0, Anthraquinone, 1,4,5,8-tetrakis(cyclohexylamino)- (derivs., for olefin polymer fiber dyeing)